



## UTILITY

PATENT APPLICATION  
TRANSMITTAL

Attorney Docket No.

501030.01

October 18, 2001

First Inventor or Application Identifier

Timothy B. Cowles et al.

Title

LOW POWER AUTO-REFRESH CIRCUIT AND METHOD  
FOR DYNAMIC RANDOM ACCESS MEMORIES

Express Mail Label No.

EL 646072570 US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

## ADDRESS TO:

Box Patent Application  
Commissioner of Patents  
Washington, D.C. 202311. ☒ Fee Transmittal Sheet (+ copy)  
(Submit an original and a duplicate for fee processing)2. ☐ Applicant(s) Claim(s) Small Entity Status3. ☒ Specification [Total Pages] **42**  
(preferred arrangement set forth below)

- Descriptive Title of the Invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4. ☒ Drawing(s) (35 USC 113) [Total Sheets] **6**5. ☒ Oath or Declaration [Total Pages] **2**

- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting  
inventor(s) named in the prior application,  
see 37 CFR 1.63(d)(2) and 1.33(b)

6. ☒ Application Data Sheet (37 C.F.R. 1.76)7. ☐ CD-ROM or CD-R in duplicate, large table or Computer  
Program (Appendix)8. ☐ Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)

- a. ☐ Computer-Readable Form (CRF)
- b. ☐ Specification Sequence Listing on:  
i. ☐ CD-ROM or CD-R (2 copies); or  
ii. ☐ paper
- c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☐ Certification Under 35 U.S.C. 122(b)(2)(B)(i)10. ☒ Assignment Papers (cover sheet & document(s))11. ☒ 37 CFR 3.73(b) Statement (when there is an assignee) ☒ Power of Attorney12. ☐ English Translation Document (if applicable)13. ☒ Preliminary Amendment Total Pages **39**14. ☒ Return Receipt Postcard15. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations16. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)17. ☒ Other: Certificate of Express Mail  
Check18. If a **CONTINUING APPLICATION**, check appropriate box and supply the requisite information below and in a preliminary amendment☐ Continuation ☐ Divisional ☐ Continuation-In-Part (CIP) of prior Application No.: \_\_\_\_\_ Filed \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group / Art Unit \_\_\_\_\_

☐ **Incorporation By Reference** (useable if box 5b is checked)

The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 5b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

## CORRESPONDENCE ADDRESS

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SIGNATURE

Date

October 17, 2001

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Timothy B. Cowles, Brian M.  
Shirley and Greg A. Blodgett

Attorney Docket No.: 501030.01

Filed : October 18, 2001

Title : LOW POWER AUTO-REFRESH CIRCUIT AND METHOD FOR DYNAMIC  
RANDOM ACCESS MEMORIES

**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

Box Patent Application  
Commissioner of Patents  
Washington, D.C. 20231

Sir:

I hereby certify that the enclosures listed below are being deposited with the United States Postal Service "EXPRESS MAIL Post Office to Addressee" service under 37 C.F.R. § 1.10, Mailing Label Certificate No. EL 646072570 US, on October 18, 2001, addressed to Box Patent Application, Commissioner of Patents, Washington, DC 20231.

Respectfully submitted,

DORSEY & WHITNEY LLP



/ for West Courier

EWB:dms

Enclosures:

Postcard  
Check  
PTO/SB/05 Utility Patent Application Transmittal  
Application Data Sheet  
Fee Transmittal Sheet (+ copy)  
General Authorization  
Preliminary Amendment  
Specification, Claims, Abstract (42 pages)  
6 Sheets of Drawings (Figures 1-6)  
Declaration  
Election and Power of Attorney  
Form PTO-1595  
Assignment

# FEE TRANSMITTAL SHEET (FOR FY 2001)

*Complete if Known*

Express Mail No.	EL 646072570 US
Filing Date	Concurrently Herewith
First Named Inventor	Timothy B. Cowles et al.
Group Art Unit	Not Yet Assigned
Examiner	Not Yet Assigned
Atty. Docket Number	501030.01

## METHOD OF PAYMENT (Check One)

1. ☒ The Commissioner is hereby authorized to charge any additional fee required under 37 C.F.R. §§ 1.16 and 1.17 and 1.136(a)(3) and credit any over payments to Deposit Account No.: 50-1266; Deposit Account Name: DORSEY & WHITNEY LLP

2. ☒ Check Enclosed

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
401	740	201	370	<input checked="" type="checkbox"/> Utility Filing Fee
106	330	206	165	<input type="checkbox"/> Design Filing Fee
108	740	208	370	<input type="checkbox"/> Reissue Filing Fee
114	160	214	80	<input type="checkbox"/> Provisional Filing Fee
<b>Subtotal (1)</b>				<b>\$740</b>

### 2. EXTRA CLAIM FEES

Current Claims	Prior	Extra	Fee	Fee Paid
Total	110	20	= 90 x \$ 18 =	\$ 1620
Ind.	9	3	= 6 x \$ 84 =	\$ 504
Multiple Dependent Claims			x \$ =	\$
<b>Subtotal (2)</b>				<b>\$ 2124</b>

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent Claim
109	80	209	40	Reissue independent claims over original patent
110	18	210	9	Reissue claims in excess of 20 and over original patent

## FEE CALCULATION (Continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge - Late filing fee or oath	\$
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	\$
139	130	139	130	Non-English specification	\$
147	2,520	147	2,520	For Filing a Request for Reexamination	\$
115	110	215	55	Extension for reply within first month	\$
116	400	216	200	Extension for reply within 2 <sup>nd</sup> month	\$
117	920	217	460	Extension for reply within 3 <sup>rd</sup> month	\$
118	1,440	218	720	Extension for reply within 4 <sup>th</sup> month	\$
128	1,960	280	980	Extension for reply within 5 <sup>th</sup> month	\$
120	320	220	160	Filing a brief in support of an appeal	\$
121	280	270	140	Request for oral hearing	\$
148	110	248	55	Terminal Disclaimer Fee	\$
140	110	240	55	Petition to revive - unavoidable	\$
141	1,280	241	640	Petition to revive - unintentional	\$
142	1,280	242	640	Utility/Reissue issue fee (+ advance copies)	\$
143	460	243	230	Design issue fee (+ advance copies)	\$
122	130	122	130	Petitions to the Commissioner	\$
123	50	123	50	Petitions related to provisional applications	\$
126	180	126	180	Submission of IDS	\$
581	40	81	40	Recording each patent assignment per property (times number of properties)	\$40
179	740	279	370	Request for Continued Examination (RCE)	\$
Other fee (specify)					\$
<b>Subtotal (3)</b>					<b>\$40</b>

**Total Amount of Payment: \$2904**

Submitted by:

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*Edward W. Bulchis*

Date:

*October 17, 2001*